PBOT
PORTLAND BUREAU OF TRANSPORTATION

February 4, 2021

Columbia Lombard Mobility Plan
Portland Freight Committee

Overview

PBOT
PORTLAND BUREAU OF TRANSPORTATION

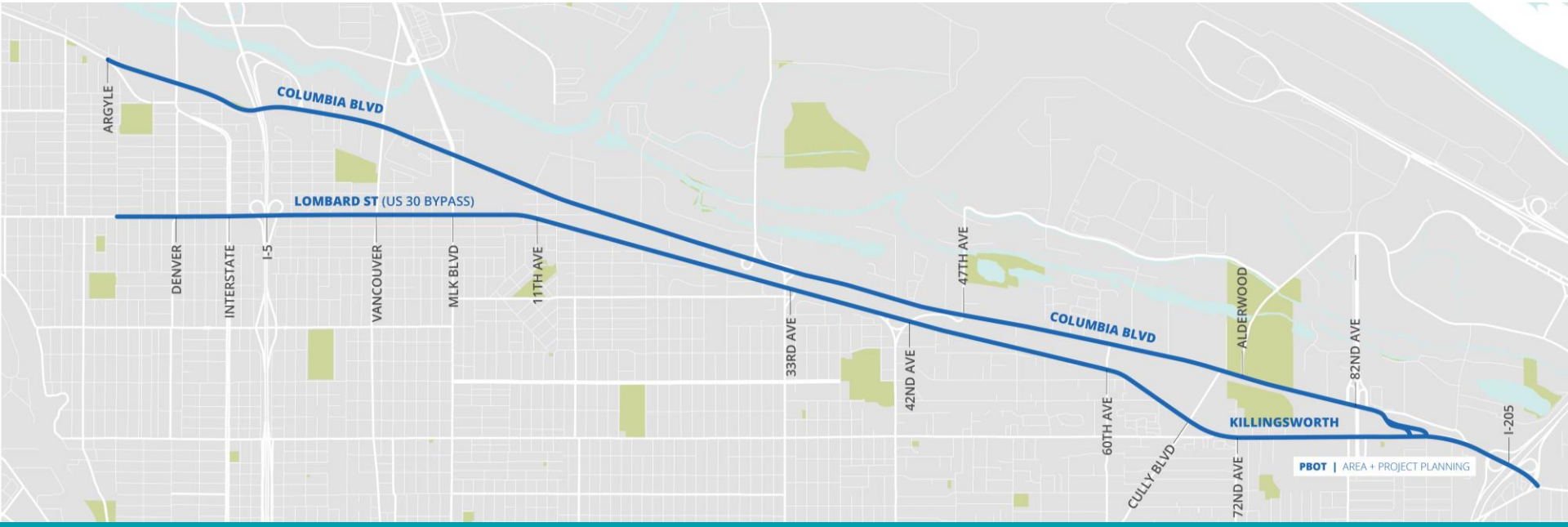
AREA + PROJECT PLANNING

Columbia Lombard Mobility Plan

Introduction and Goals

The Columbia Lombard Mobility Corridor Plan originated out of a collective recognition that these corridors are not functioning as they should. Some of the well-known issues include unsafe and unpredictable road conditions, limited access to jobs and services, constraints to efficient freight movement, unclear priorities and a lack of investment in maintenance.

The goal of the Columbia Lombard Mobility Corridor Plan is to identify and prioritize projects and strategies that will improve safety, connectivity and access for people walking and biking, and improve the reliability of freight movement along and across these corridors.



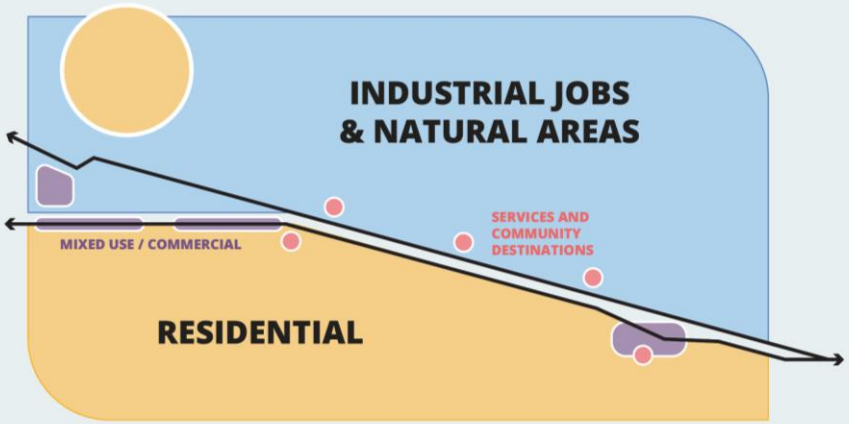
Columbia Lombard Mobility Plan – Existing Conditions

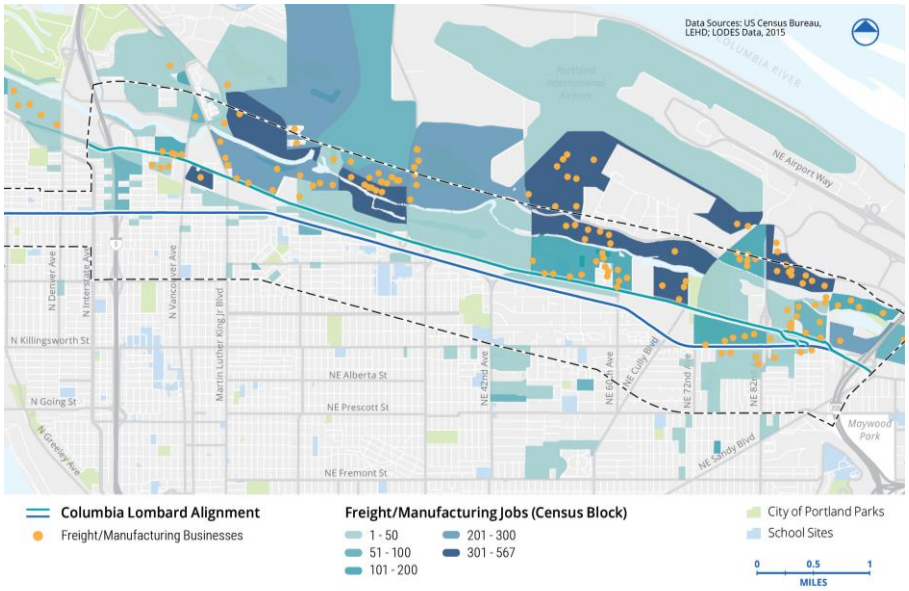
CHAPTER 02

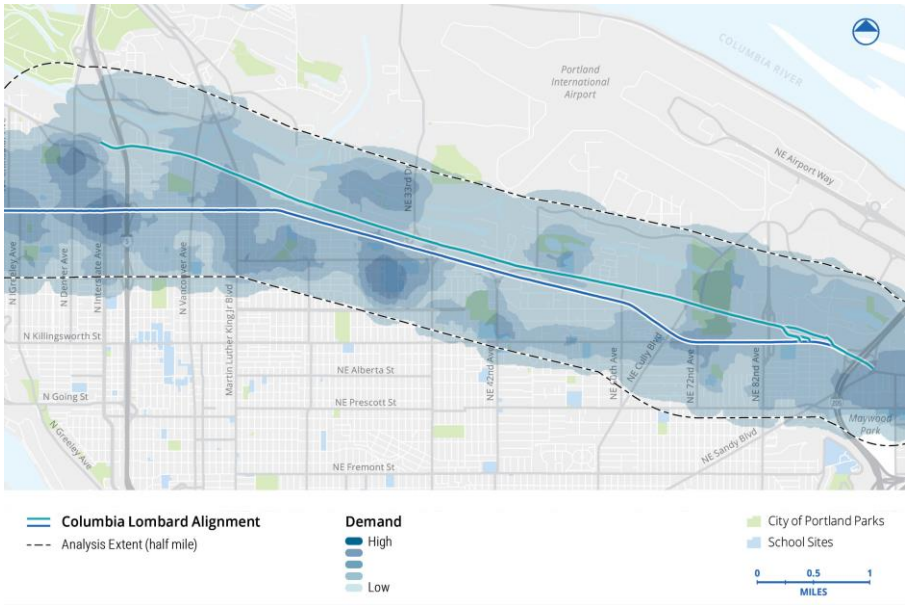
THE COLUMBIA AND LOMBARD CORRIDORS TODAY

Context, issues, and existing conditions on the Columbia and Lombard Corridors

CORRIDOR CONCEPTUAL MAP







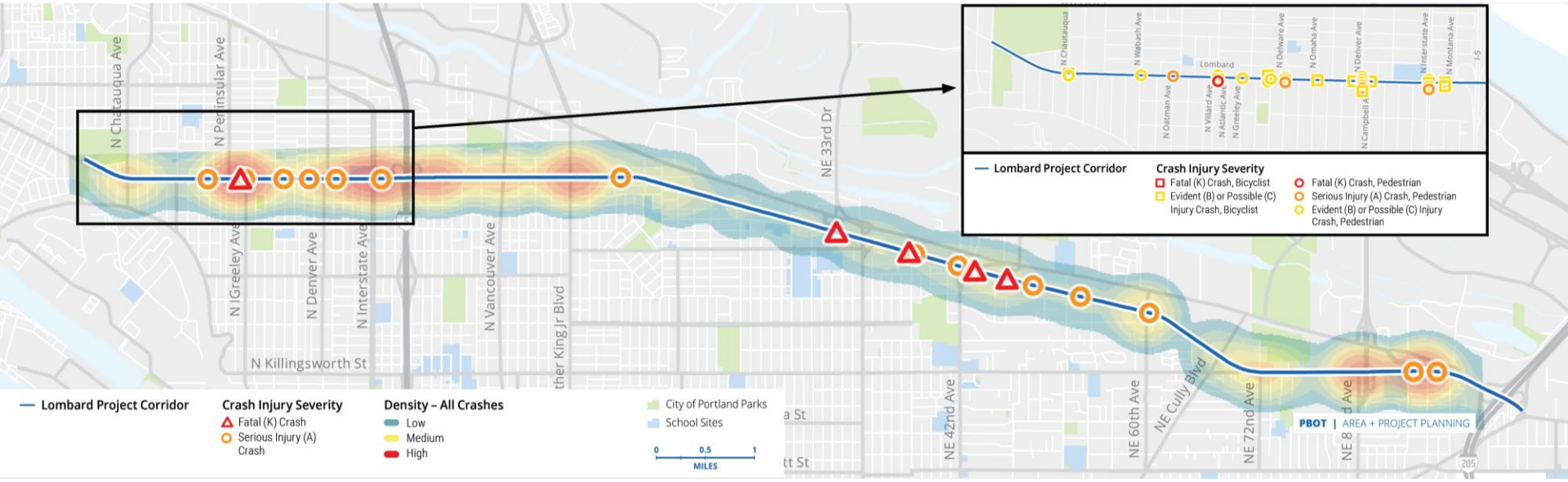
Columbia Lombard Mobility Plan – Existing Conditions

CHAPTER 02

THE COLUMBIA AND LOMBARD CORRIDORS TODAY

COLUMBIA BOULEVARD – TOTAL, FATAL, SERIOUS INJURY, PEDESTRIAN AND BICYCLIST CRASHES BY LOCATION

Junction Type	Intersection Type	Total Crashes	Fatal Crashes	Serious Injury Crashes	Pedestrian Crashes	Bicyclist Crashes
Intersection	Total	444	0 (0%)	4 (1%)	3	4
	Signalized	333	0	4	2	3
	Unsignalized	111	0	0	1	1
Segment	–	318	4 (1%)	8 (3%)	3	3



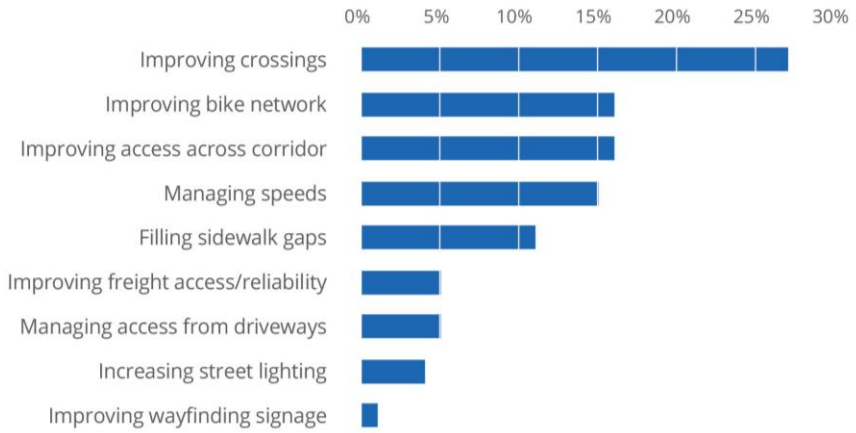
Columbia Lombard Mobility Plan – Public Involvement

CHAPTER 03

PLAN PROCESS & COMMUNITY ENGAGEMENT

During the two year Columbia Lombard planning process, we engaged hundreds of businesses, community members, and organizations all along the corridor. The input we received directly influenced the project recommendations.

Online survey responses on what corridor-wide issue is most important to address.



Engagement Phase 1 | Spring/Summer 2019

What we heard and how it was used

During this round of engagement, **the most consistent theme we heard was the need to improve safety.** A survey and online map asked respondents to identify issues and needs along the corridor. Many felt that improvements were needed for all travel modes, and specifically to improve predictability among road users. Key themes and recommendations are listed below. This input was used, along with the analysis of existing conditions, to develop the project recommendations.

KEY TAKEAWAYS

Some general recommendations that were shared:

- Make it **safer to enter/exit**, improve signals/signs, l**ower speeds,** add more enforcement, improve road conditions, improve freight route.
- Add **more pedestrian crossings and lighting**, improve sidewalk condition, and add more frequent transit service with better stops
- Create more dedicated, **safe bicycle facilities** and improve crossings.

Columbia Lombard Mobility Plan - Recommendations

CHAPTER 04

PROJECT RECOMMENDATIONS

In general, the plan recommends the following:

- **Better delineate Columbia Blvd as a freight corridor**, improving travel time reliability while improving access and safety
- **Improve the safety of NE Lombard Street** by better managing speeds, improving walking/biking facilities, and adding crossings without significantly impacting traffic operations.
- **Improve north-south connectivity**, specifically for those walking and biking, to access jobs and recreation opportunities
- **Provide low-stress east-west bicycle routes**
- **Improve travel time predictability**

Columbia Lombard Mobility Plan - Recommendations

COLUMBIA
N ARGYLE to MLK BLVD

GOAL FOR SEGMENT

Reduce the high rate of serious crashes for people driving; provide a safe and predictable pedestrian and bicycle network; and ensure freight can move safely and efficiently.

RECOMMENDED IMPROVEMENTS

To improve safety and visibility, lighting should be added on the north side of the street and a median or rumble strips installed to reduce head-on collisions. Wide intersections, like at Columbia Boulevard and I-5, should be narrowed by adding truck aprons. Improvements are also recommended at the intersections of Columbia and Interstate Avenue, Vancouver Avenue, and Martin Luther King Jr. Boulevard, to improve traffic operations and pedestrian safety. Gaps in the sidewalk network should be filled, and crossings should be added at bus stops when planned service begins. A new, higher, railroad bridge is needed to facilitiate over-dimensional freight.

Better predictability is needed for people biking. The intersection of NE Argyle and Columbia should be improved to better route people biking east to planned/existing facilities on NE Argyle and N Denver streets.

Finally, automated enforcement and/or speed reader boards should be added to manage excessive speeds and red-light running, especially during off-peak hours.

SPOT IMPROVEMENTS

- Improve intersection geometry
- Add/upgrade signal
- Resurface roadway
- Railroad improvement
- fill sidewalk gaps on one or both sides

SEGMENT-WIDE IMPROVEMENTS

- Use access management to reduce head-on and left-turn collisions
- Add lighting
- Add crossings that coincide with future bus service stop locations
- Manage excessive speeding using automated enforcement and speed reader boards

COLUMBIA BLVD. AT NE ARGYLE ST

Safety at the intersection of N Argyle Street/Way and NE Columbia should be improved by eliminating the eastbound right turn slip lane and using the space to provide a better connection for people biking and walking. This will provide a better connection from the path on N Columbia Boulevard to recommended bicycle facilities on N Argyle Way.

UNION PACIFIC RAILROAD BRIDGE

The current Union Pacific railroad bridge does not have sufficient clearance for over-dimensional (extra-tall) freight trucks. Raising the clearance would likely require a new double track bridge to accomodate a future second main line track. While recommended for freight operations, this would be very expensive and would not prevent normal freight from using Lombard Street. To reduce freight traffic on Lombard, a new connection to the St. John's bridge or US 30/NE St Helens Road that reduces out-of-direction travel for freight should be analyzed further. See also page 72, "Planning for Regional Freight Movement."

MLK AND COLUMBIA

This intersection was recently improved, with the addition of a right-turn lane on the northeast corner. However, additional upgrades are still needed. These include adding automated enforcement to prevent red-light running, improving the bus-stop location and amenities, adjusting the signal timing (potentially adding leading pedestrian intervals), and adding turn pockets on the northwest and southeast corners with truck aprons.

Columbia Lombard Mobility Plan - Recommendations

Summary of Recommendations for the Columbia Corridor

- **Improve lighting and safety** through signal upgrades, speed reader boards, and raised medians/rumble strips (where possible)
- **Add signage** approaching/along the corridor to highlight street as freight corridor and improve wayfinding
- **Improve transit access** and amenities (preparing for planned expansion of transit service)
- Make **improvements to Freight District Streets** in the area
- Fill sidewalk gaps
- **Add signal at NE Columbia/NE 11th Ave.**
- Make near-term safety **improvements to NE 33rd Ave**/NE Columbia Boulevard, and plan for more significant future improvements
- **Restripe corridor between NE 60th and NE 80th** to improve freight reliability in advance of future widening
- Further **improve MLK Jr. Boulevard/NE Columbia Boulevard**
- Increase vertical clearance under UP railroad bridge

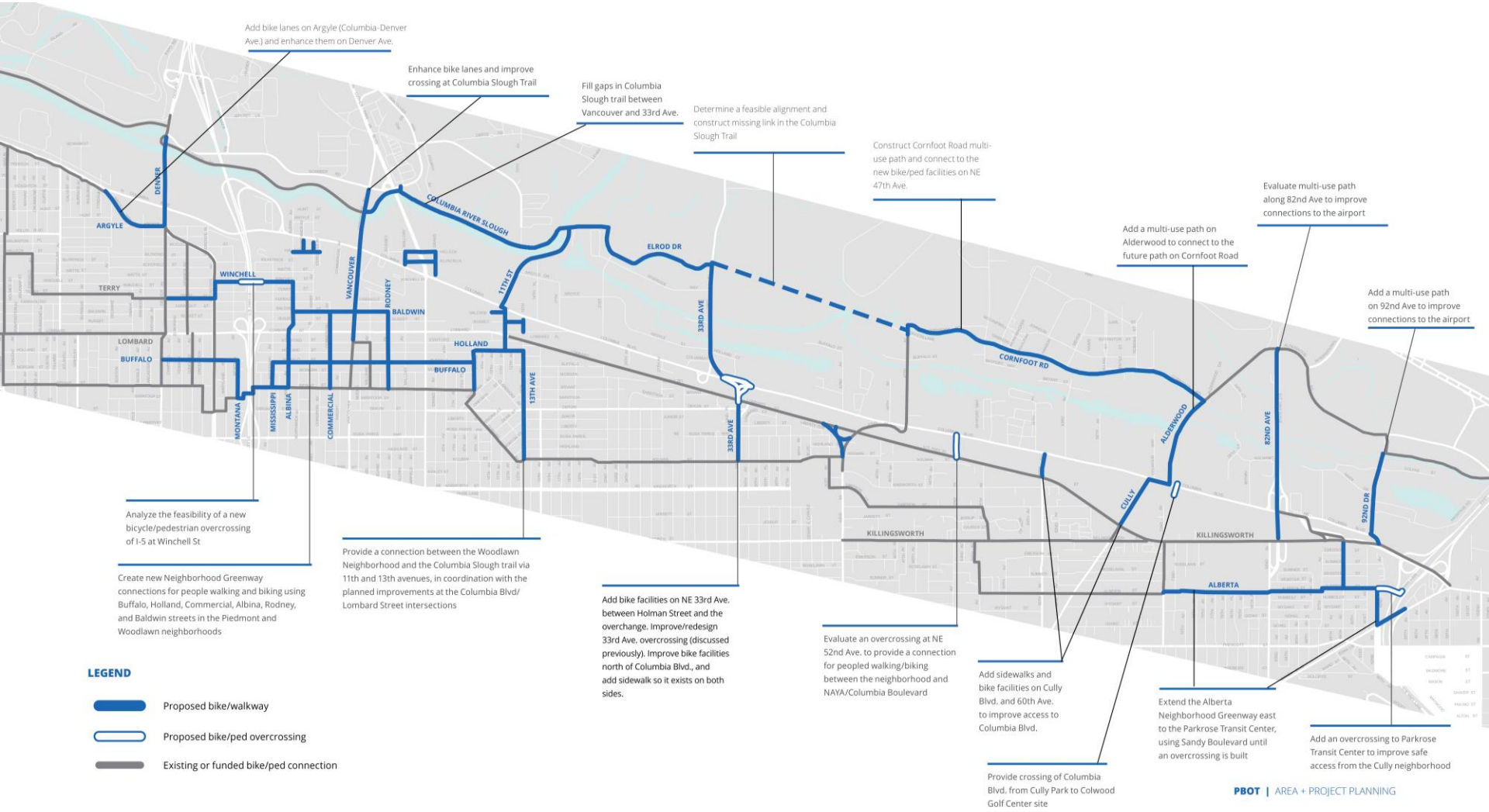
Columbia Lombard Mobility Plan - Recommendations

Summary of Recommendations for the Lombard Corridor

- **Add ITS upgrades** to Lombard between I-5 and I-205
- Improve lighting
- **Extend ODOT's lane reconfiguration** to Denver Ave.
- Add **additional crossings** for people walking and biking and upgrade existing signals
- **Remove on-street parking** between I-5 and NE MLK Boulevard and widen centerline
- **Improve railroad crossing at NE 11th Ave**/Lombard
- **Improve safety between NE 11th and NE 60th avenues** through restriping, access management, and additional signals.
- **Improve ramps** on/off NE 33rd and NE 42 avenues
- Fill sidewalk gaps
- **Improve safety on NE Killingsworth** by installing median where possible, upgrading signals, and enhancing bike facilities
- **Redesign I-205 ramp**

Columbia Lombard Mobility Plan - Recommendations

Summary of Off-Corridor Recommendations



Columbia Lombard Mobility Plan – Additional Recommendations

LIST OF ADDITIONAL RECOMMENDATIONS

1. Manage driveway access and gates on corridor
2. Integrate stormwater management in redevelopment
3. Improve sidewalk condition and standards
4. Reduce noise and other environmental pollution
5. Improve over-dimensional freight permit process
6. Study highway interchange improvements
7. Plan for regional freight movement
8. Increase transit service along Columbia Boulevard

PBOT | AREA + PROJECT PLANNING

Columbia Lombard Mobility Plan - Implementation

CHAPTER 06

IMPLEMENTATION AND NEXT STEPS

To better focus work plan and manage expectations, projects separated into three categories: “high-readiness,” “medium readiness,” or “low readiness”

- Projects in **“high-readiness” category** most likely to be implemented first, as they:
  - **Address an identified safety need**
  - **Do not need additional project design or refinement**
  - **Can be implemented quickly**
  - **Have a clearly identified source of funding**

- Medium-readiness category also address an identified safety need, but might need additional development/refinement or need to find a suitable funding source

Columbia Lombard Mobility Plan

COLUMBIA PROJECT IMPLEMENTATION

The map below illustrates the projects in the high- or medium-readiness categories for Columbia Boulevard. A full list of projects can be found in Appendix F, and more details on each project can be found in the Recommendations chapter.

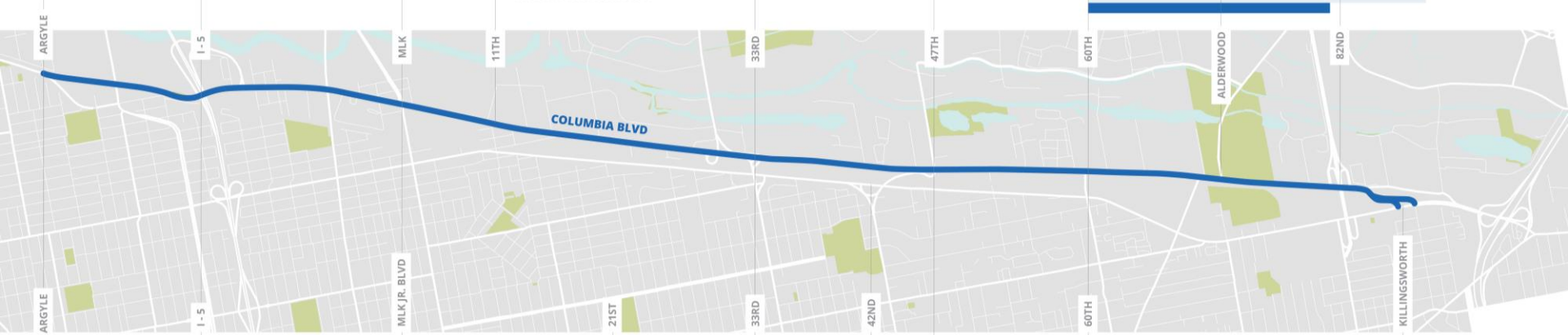
High-readiness projects

LIGHTING IMPROVEMENTS — Add infill street lighting to meet current standards.

SAFETY AND FREIGHT IMPROVEMENTS — Reconfigure skewed intersections to reduce turning speeds, upgrade aging traffic signals, add raised medians or rumble strips where feasible, and fill sidewalk gaps. Add red-light cameras and/or speed feedback signs, and wayfinding signage to notify users of freight traffic.

TRAFFIC SIGNAL COLUMBIA & 11TH AVE

FREIGHT OPERATIONAL IMPROVEMENTS — Restripe road between NE 60th and NE 80th from three to four lanes.



ACCESS TO TRANSIT SEGMENT 1 — Fill sidewalk gaps and improve maintenance of existing sidewalks on NE Columbia Blvd. Provide new bus stops and enhanced crossings to support new service.

ACCESS TO TRANSIT SEGMENT 2 — Consolidate bus stop locations and provide enhanced pedestrian crossings at the remaining stops.

ACCESS TO TRANSIT SEGMENT 3 — Fill sidewalk gaps and improve maintenance of existing sidewalks on NE Columbia Blvd. Provide new bus stops and enhanced crossings to support new service.

COLUMBIA BLVD OVER-DIMENSIONAL FREIGHT IMPROVEMENT

MLK & COLUMBIA IMPROVEMENTS: PHASE 2

Medium-readiness projects

APPENDIX F

COLUMBIA LOMBARD
PROJECT LIST

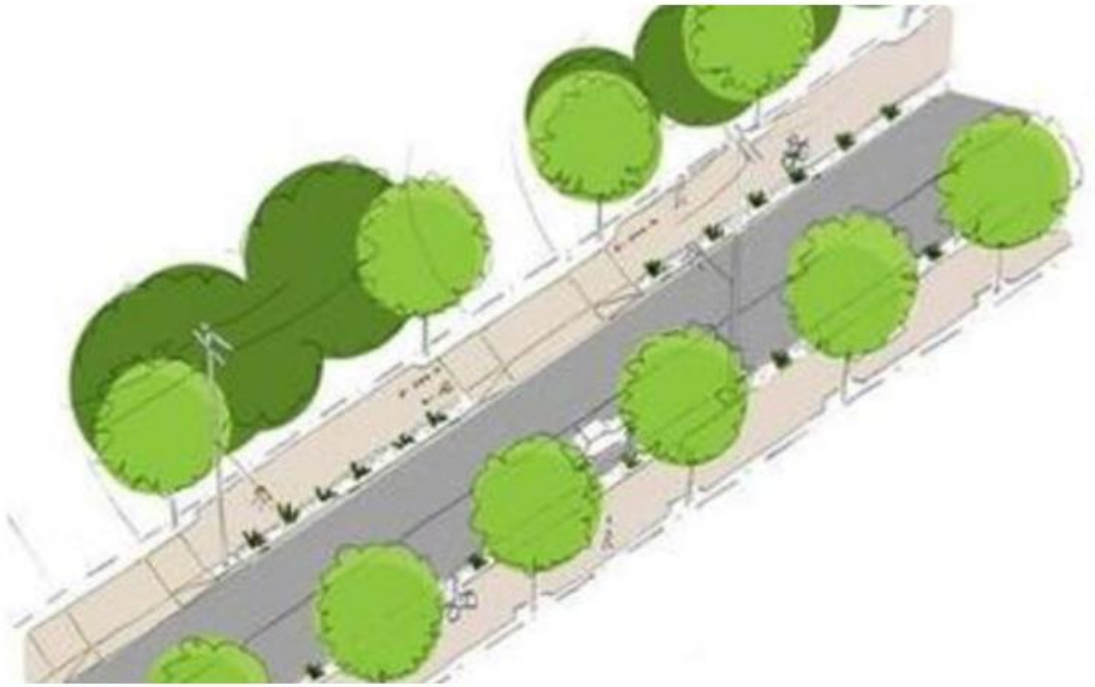
Project name	Project location	Project description	Implementation readiness level *Low, Medium, High*	Readiness factors	Plan-level cost estimate **$** *(<$3 million),* **$$** *($3-10 million),* **$$$** *(>$10 million)*
Columbia Corridor Projects					
Columbia Blvd Corridor Lighting Improvements	N/NE Columbia Blvd (Argyle - 82nd)	Add infill street lighting along both sides to meet current standards.	High--Ready for funding opportunities	PBOT has experience with these kinds of lighting projects and has contractors to do the work at a typical cost per mile. Recent funding requests indicate a high likelihood that these projects could be implemented in the coming years.	$
Columbia Blvd Corridor Safety Improvements	N/NE Columbia Blvd (Argyle - 60th)	Reconfigure skewed intersections to reduce turning speeds, upgrade aging traffic signals, install speed reader boards/automated enforcement and add raised medians or rumble strips where feasible.	High--Ready for funding opportunities	Safety analysis and high-level concept work indicate these are generally feasible and beneficial safety improvements, and could be the basis for state or federal safety funding.	$$
Columbia Blvd Access to Transit, Segment 1	N/NE Columbia Blvd (Argyle - 21st)	Fill sidewalk gaps and improve maintenance of existing sidewalks on N/NE Columbia Blvd to improve safety and access to transit for proposed bus line along Columbia Blvd. Provide new bus stops and enhanced crossings to support the new service.	Medium--Needs more project development	TriMet has proposed a new bus line along Columbia Blvd by 2025. Will need to work with TriMet to coordinate in the coming years. May need right-of-way acquisition or dedication in some areas to provide minimum standard sidewalk width.	$$
Columbia Blvd Access to Transit, Segment 2	NE Columbia Blvd (21st - 47th)	Fill sidewalk gaps and improve maintenance of existing sidewalks on NE Columbia Blvd from 21st to 47th to improve safety and access to transit, with 33rd to 47th being the highest priority due to higher level of transit service. Consolidate bus stop locations and provide enhanced pedestrian crossings at the remaining stops.	Medium--Needs more project development	Scope is relatively straightforward, but no project development to date. Right-of-way is limited, and utilities and topography can present challenges. Crossing treatments and transit stop changes have not been determined. More work is needed to assess cost and right-of-way needs.	$$

Next Steps

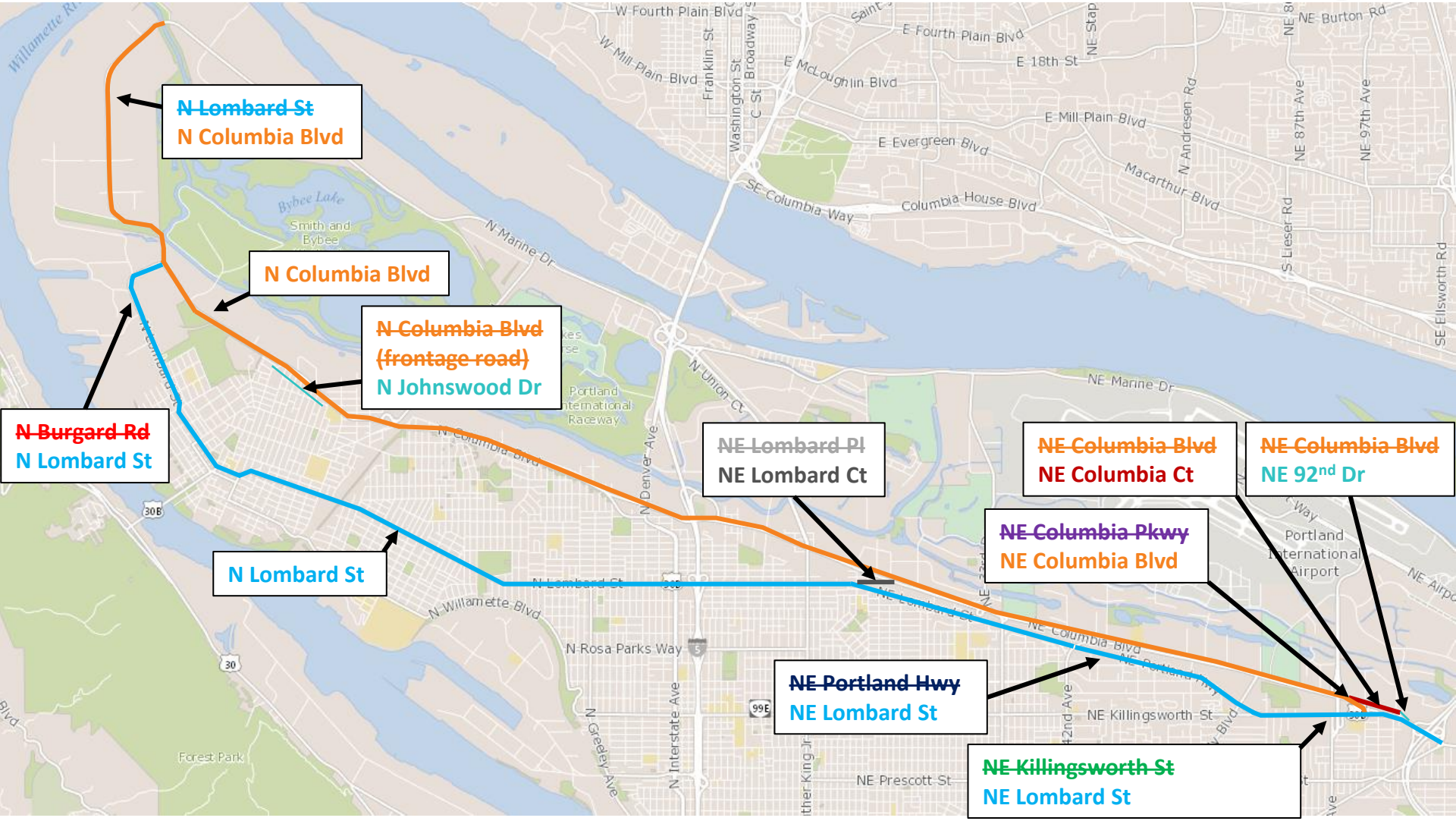
- Plan will soon be public for review, comments being received through March 31
- PFC can share comments collectively, individually, and/or by sub-committee
- Comments will be incorporated, then a revised draft will be shared with City Council for comment, testimony and adoption in April/May
- Work already underway on several projects in the area

NE 47th Ave Roadway Reconstruction (nearly complete)

NE 47th Avenue from north of Columbia Boulevard to south of Cornfoot Road was one of Portland's most deteriorated road segments. The Portland Bureau of Transportation (PBOT) is completely reconstructing the road, adding multiuse paths on both sides of the street for pedestrians and people biking.



Lombard/Columbia Wayfinding Improvements: Upcoming Street Name Changes (May 2022)



NE Columbia/Cully/Alderwood Project (2022 to 2023)

- Required as part of the PDX Airport Futures Plan to manage traffic flows.
- Will construct new traffic signals at Cully & Columbia and Alderwood & Columbia (replaces existing temporary signal), with side-by-side left turn lanes to manage transitions.
- Will include full modern detection and signal timing system to efficiently manage traffic and prioritize freight movement.
- Includes widening roadway to accommodate future Columbia Blvd widening project in the Transportation System Plan.

NE 42nd Ave Bridge Replacement Project (2022 to 2023)

- Increases vertical clearance over Lombard St (Hwy 30 Bypass), removing major over-dimensional barrier identified in Metro Over-Dimensional Study.
- Removes weight restriction on bridge deck, allowing more freight trucks to use connection between Columbia and Lombard.
- Provides a seismically-safe bridge over a designated Emergency Transportation Route, improving system resiliency.

NE 42nd Ave Bridge Replacement Project (2022 to 2023)

- Increases vertical clearance over Lombard St (Hwy 30 Bypass) to **17'11"**, removing major over-dimensional barrier identified in Metro Over-Dimensional Study.
- Removes weight restriction on bridge deck, allowing more freight trucks to use connection between Columbia and Lombard.
- Provides a seismically-safe bridge over a designated Emergency Transportation Route, improving system resiliency.

Assessing key corridor constraints

City of Portland key corridors constraints and solutions, continued

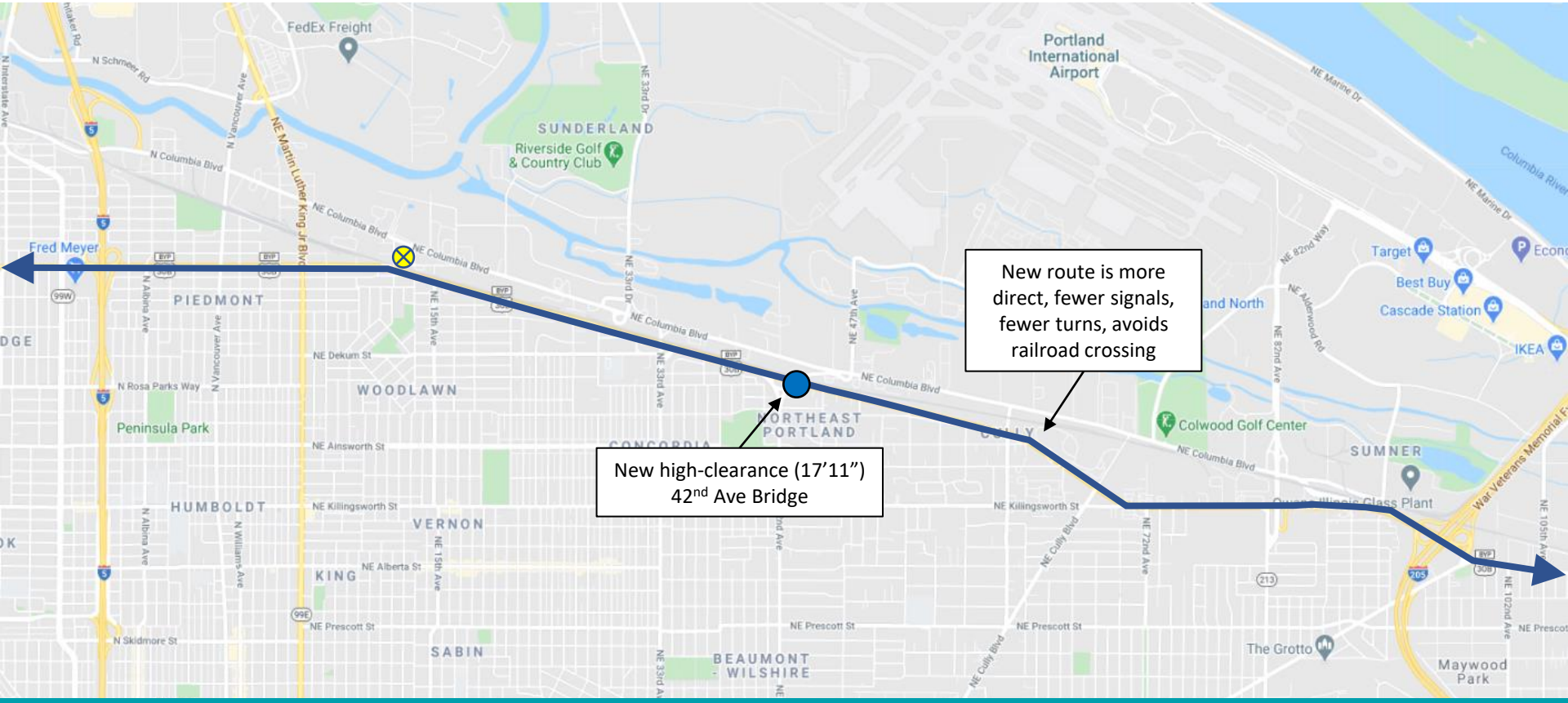
location ID	constrained location	constraint description	solution(s)
17	P4. NE 42nd Ave Bridge Undercrossing (BR 075/02485)	Bridge clearance height is 15'10", the lowest along the US 30 Corridor, limiting 13 percent of the over-height moves in the region.	NE 42nd/47th Ave Bridge & Corridor Improvements (TSP 40007): Replace the weight-restricted NE 42nd Ave Bridge (#075) over NE Portland Hwy and the adjacent railway, and add pedestrian and bicycle facilities to the bridge and the roadway from Killingsworth to Columbia. This project will remove the weight restriction, maintain vertical clearance for over-dimensional freight, and provide pedestrian and bicycle facilities.

Over-Dimensional Freight Movement Pattern Changes

- Currently, all over-height vehicles traveling east-west on Hwy 30 Bypass must detour to NE Columbia Blvd via NE Lombard Place, and then back to Hwy 30 Bypass via NE Columbia Parkway, to avoid the low-height 42nd Ave Bridge.

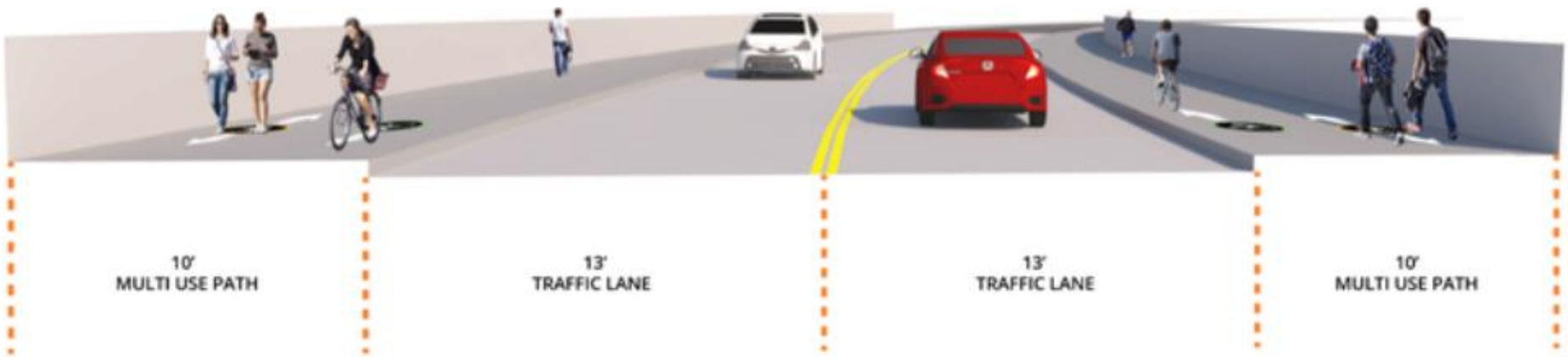
Over-Dimensional Freight Movement Pattern Changes

- After upcoming replacement of 42nd Ave Bridge, over-height loads will be able to stay on Hwy 30 Bypass rather than detouring to Columbia Blvd over an at-grade railroad crossing.
- This will allow us to close NE Lombard Place just east of skewed railroad crossing and improve NE 11th Ave to be the main connection over the Kenton Line Railroad, significantly improving traffic, freight, and railroad safety and operations.



NE 42nd Ave Bridge Replacement Project

- Provides wider travel lanes and fully separated pedestrian and bicycle facilities on the bridge deck and approaches.



Bridge

NE 42nd Ave Bridge Replacement Project

- Provides space for a separated bike lane space on Lombard St underneath, rather than current bike lane “drop” that requires bikes to merge into the high-speed travel lane.

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project
(currently under development)

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

- All-way Stop control was added in 2017 through a Railroad Crossing Order as an *interim* safety measure until a better solution could be developed.

BEFORE THE OREGON DEPARTMENT

OF TRANSPORTATION

RX 1846

In the Matter of Altering the Highway-Rail Grade Crossing NE 11th Avenue at NE Lombard Place on UNION PACIFIC RAILROAD COMPANY (UPRR), a Delaware Corporation, PORTLAND SUBDIVISION, via KENTON LINE, in Portland, Multnomah County, Oregon.

INTERIM ORDER

Over the last 10 years the crossing has experienced a number of near misses. The City of Portland has developed an interim solution until such time a more permanent solution is developed. Part of the City's interim solution is to install one new STOP (R1-1) sign for the westbound traffic on NE Lombard Place. The two existing STOP signs will remain in service. All three STOP signs will receive an ALL WAY STOP (R1-3P) plaque mounted below each sign as depicted in the Appendix to this Interim Order.

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

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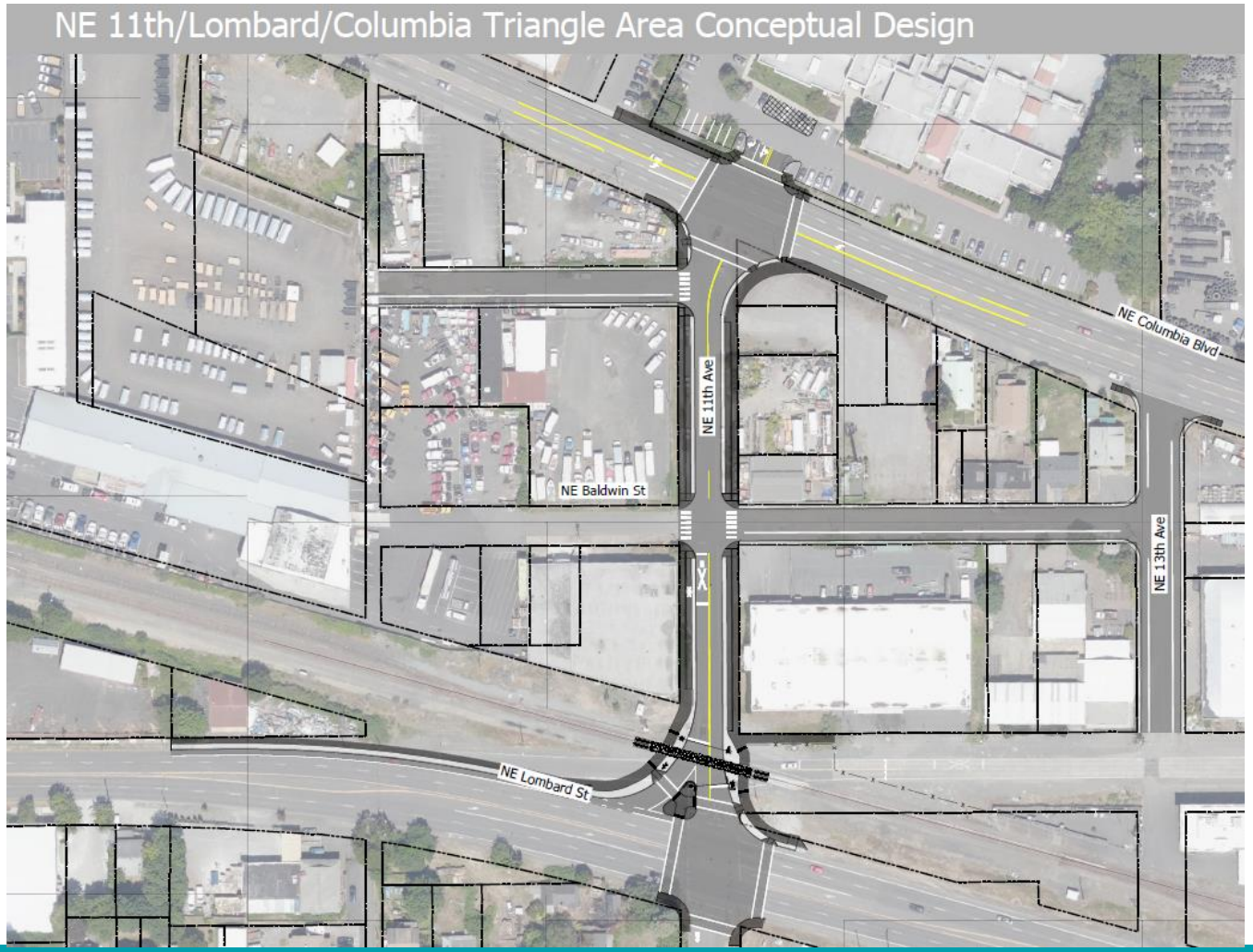
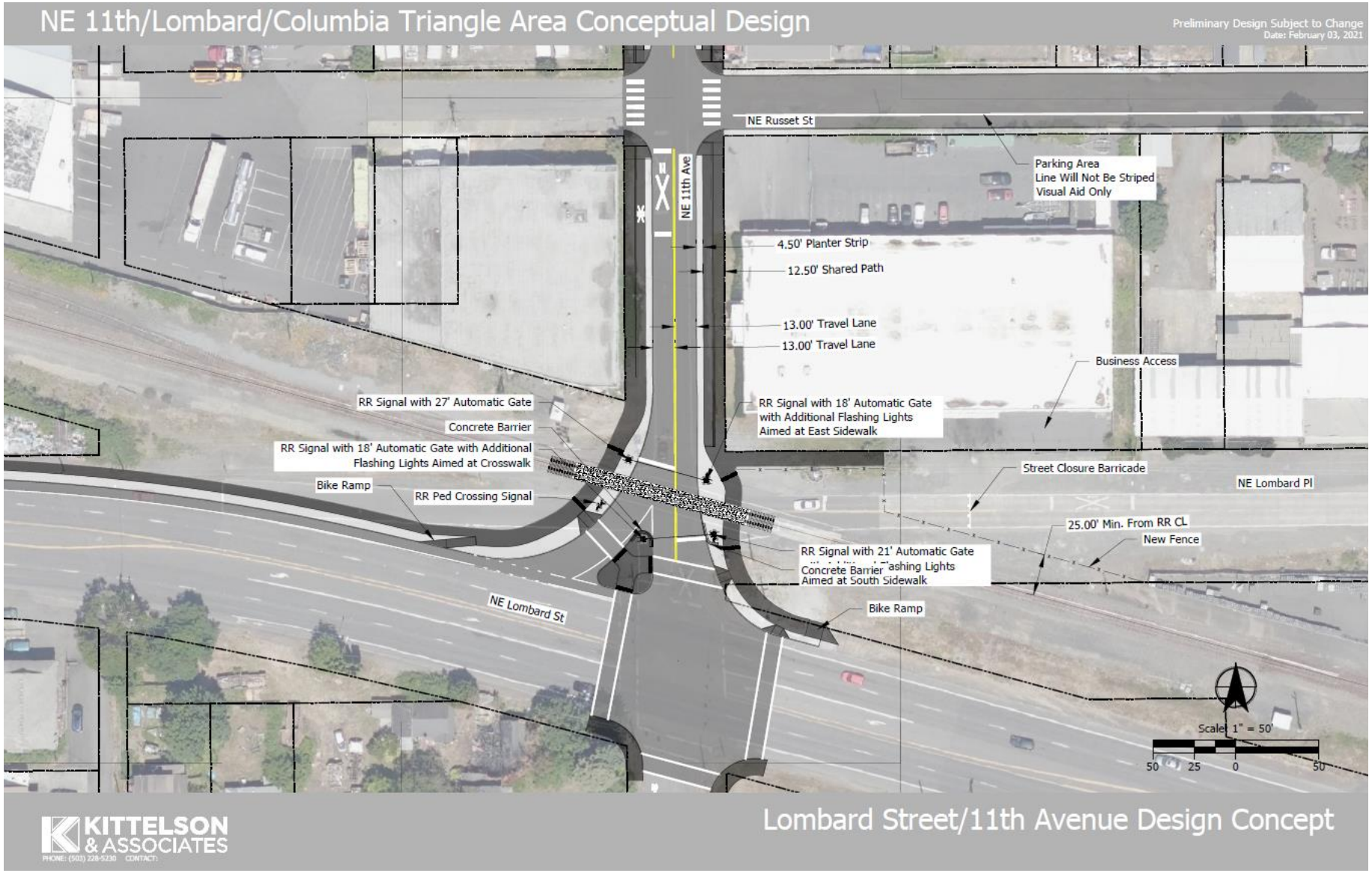
11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

- PBOT has worked with Kittelson, Associates to develop project to roughly 15% concept design level, to inform decisions on how to proceed with project.



11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project



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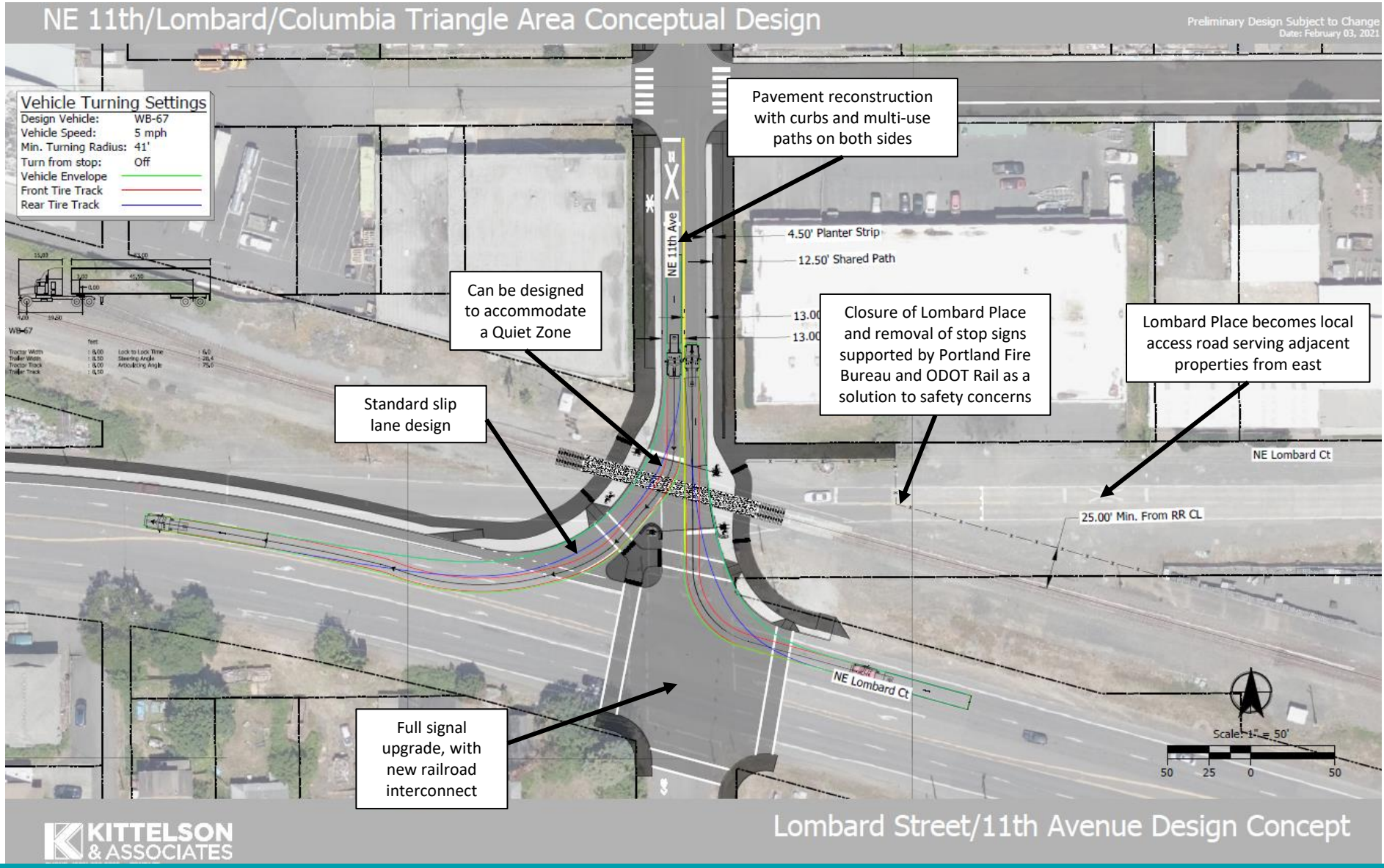

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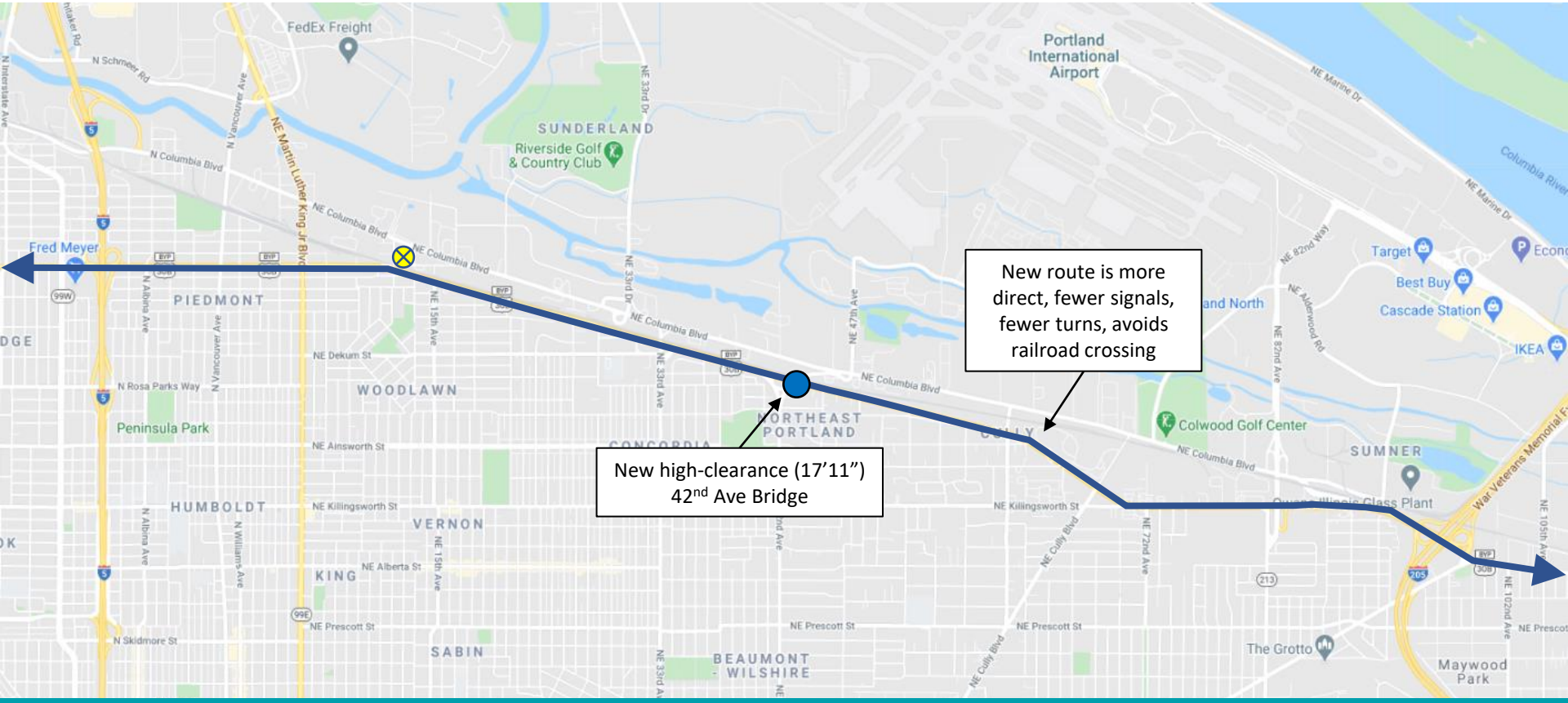
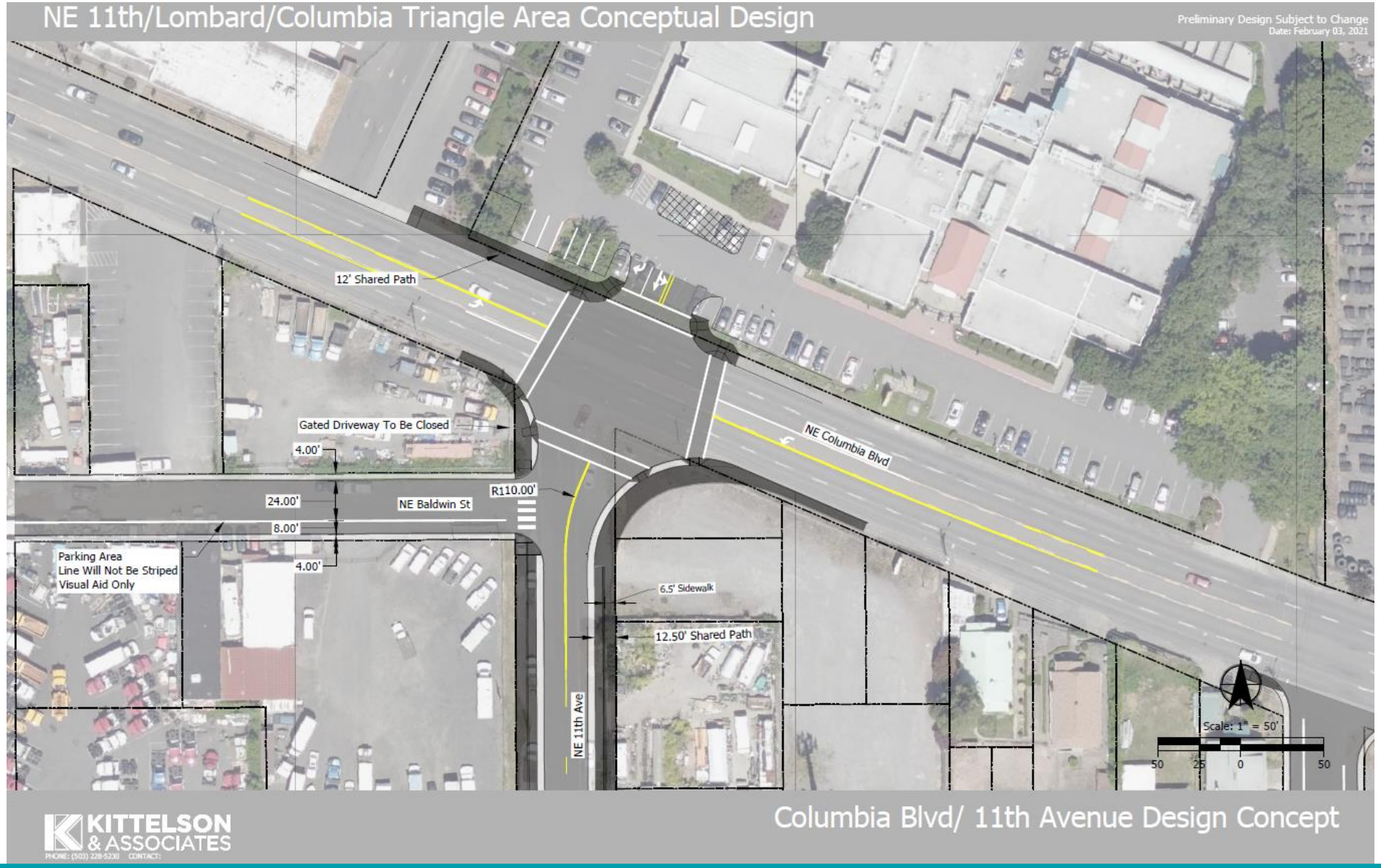


11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project



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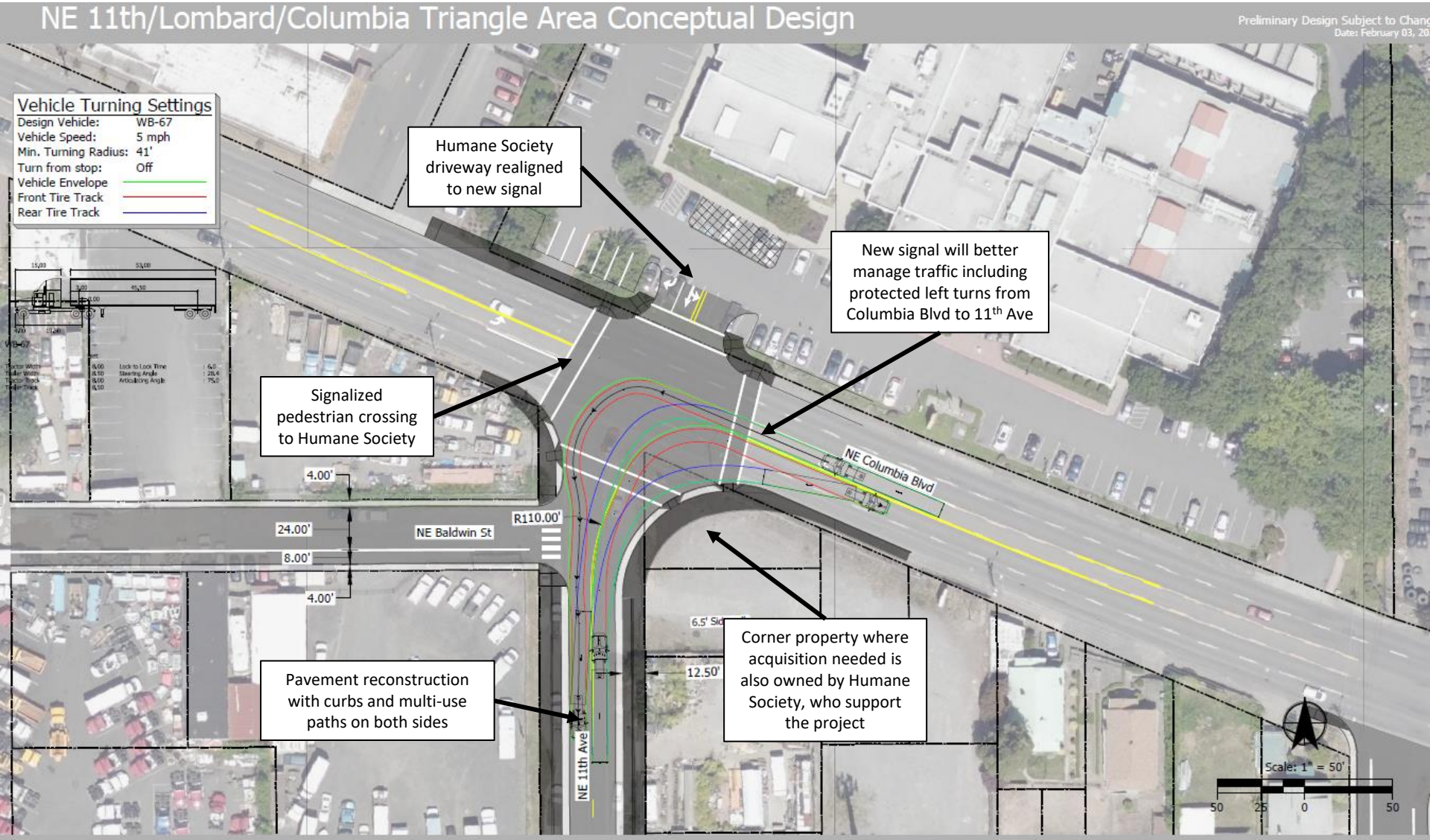

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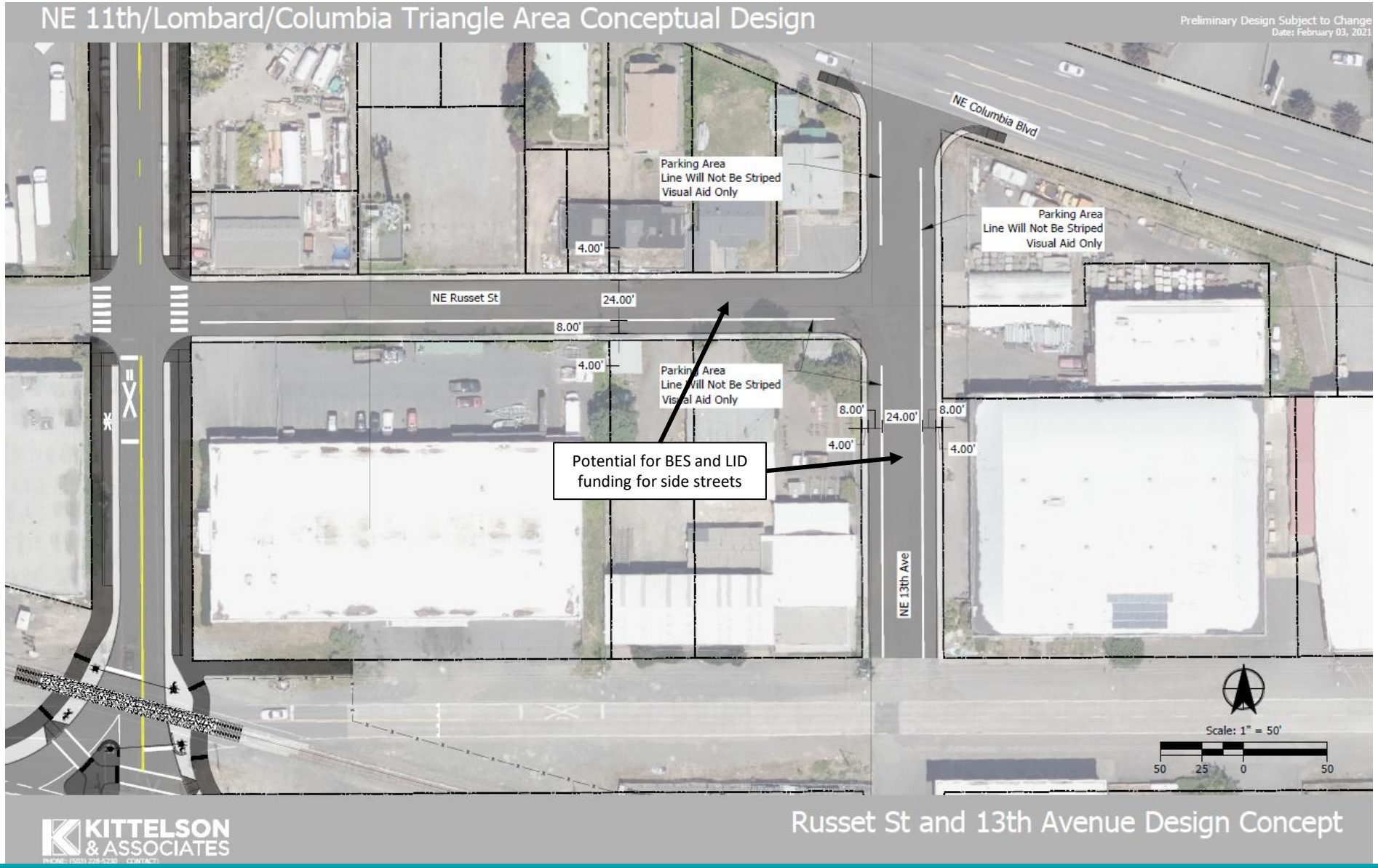

11th / Lombard / Columbia
Railroad Crossing and Roadway Improvement Project

- ODOT Rail has expressed interest in providing STIP funding for the railroad and signal elements of the project if PBOT agrees to bring the project to 30% design (including railroad diagnostic) and deliver the project.
- Potential to leverage BES stormwater funding and Local Improvement District to pay for street improvements on 11th Ave and surrounding area.
- May need additional funding depending on size of ODOT Rail, BES, and LID funding compared to total project cost.
- In near-term, we need to identify funding to advance from 15% to 30% design, including railroad diagnostic with UP, to ready project for ODOT Rail funding agreement and other leverage opportunities.

Questions?

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